Immunity and pathogenesis in viral infection

Our research interests are centered around the interplay between virus and host, with special emphasis on persistent infection. In broad terms we investigate the following aspects thereof:

- B cell responses in persistent viral infection
- Role of alarmins in T cell immunity
- Virally vectored vaccines
- Viral triggers of autoimmune disease
- Mechanisms of viral pathogenesis

Thereby, our research portfolio covers both adaptive and innate immune defense, with viral infection as a common theme. We combine molecular virological techniques (“reverse genetics”) for the engineering of infectious viruses with state-of-the-art mouse infection models, cutting-edge cellular immunological techniques and a broad range of molecular analytics. Although fundamental by character, the questions addressed have strong links to major unmet global health needs. In the mid- to long-term, this offers translational potential, notably for vaccination and treatment of persistent viral diseases such as human immunodeficiency virus (HIV), hepatitis B and C virus, as well as for select autoimmune disorders and cancer.

Selected Publications


